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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/595,131	03/02/2006	Sang Kyun Cho	Q93430	3245
23373 7590 01/22/2009 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER ANDERSON, JERRY W	
			ART UNIT	PAPER NUMBER
			1794	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

## Application No.

10/595,131

## Applicant(s)

CHO ET AL.

## Examiner

JERRY W. ANDERSON

## Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SE-US)  
Paper No(s)/Mail Date 3/02/2006
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_

## DETAILED ACTION

### *Specification*

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Claims 12 and 13 refer to the steps of stabilization, filling sterilization and cooling (claim 12), and heating sterilization and cooling (claim 13). These steps are not supported by the specification. Correction is required.

### *Claim Rejections - 35 USC § 102*

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-6** are rejected under 35 U.S.C. 102(b) as being anticipated by Gandhi, N. R., et al., U. S. Pat. # 6,322,846
3. **Regarding claims 1, 2, 3, and 4**, Gandhi discloses milling soybeans, (lines 17-19, 32-33, 41-42 col.3, lines 29-30 col. 6 '846) utilizing the whole soybean without generating refuse (Okara), (lines 35-36, 45-47 col. 2 '846) passing the soybean slurry through a two stage homogenizer at up to 22,000 psi per stage (1500 bar), (line 22 col.3, lines 31-34, 52-54. 59 col. 6. lines 25-26, col. 7 '846) with the cumulative pressure (the sum of the pressures at each stage) being at least 2000 bar.
4. **Regarding claims 5 and 6**, Gandhi discloses the claimed invention as discussed above, including the soybean milk can be prepared with particulates is less than 20

microns or with a particulate range of 20 microns to 50 microns . (line 59 col. 8 '846) .

The disclosure in the prior art of any value within a claimed range is an anticipation of that range. In re Petering, 301 F.2d 676, 133 USPQ 275 (CCPA 1962)

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. **Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gandhi, N. R., et al., U. S. Pat. # 6,322,846 in view of Nishimura, T., et al., U.S. Pat. # 5,955,134.**

4. Gandhi discloses:

- a. utilizing the whole soybean without generating refuse (Okara), (lines 35-36, 45-47 col. 2 '846)
- b. Milling soybeans (lines 17-19, 32-33, 41-42 col.3, lines 29-30 col. 6 '846)

- c. Making a soybean slurry from soybean flour (lines 9-13 col. 3 '846)
  - d. passing the soybean slurry through a two stage homogenizer at up to 22,000 psi per stage (1500 bar), (line 22 col.3, lines 31-34, 52-54. 59 col. 6. lines 25-26, col. 7 '846)
  - e. soy powder blended at 90-95 ° C (lines 21-23 col. 5 '846)
  - f. or soy powder blended at 50-55°C.(line 15 col. 9 '846)
  - g. the soybean milk can be prepared with particulates is less than 20 microns or. (line 59 col. 8 '846)
  - h. or with a particulate range of 20 microns to 50 microns. (line 48 col. 3 '846)
5. Nishimura discloses:
- a. Soaking soybeans to 50 % water (lines 57-59 col. 2 '134)
  - b. In hot or cold water (lines 59 col. 2 '134)
  - c. Higher the temperature, the shorter the soaking time (line 62 col. 2 '134)
  - d. Soaking in water at 90° C until sufficiently impregnated w water. (lines 47-49 col. 5 '134)
  - e. Soaking soybeans in water for 60 min at 40°C (line 54 col.8 '134)
  - f. Grinding beans at 90°C (lines 50 col. 5 '134)
  - g. If [homogenization] pressure is too high, the particle size of the obtained aqueous soybean slurry becomes too small to separate the Okara and soybean milk effectively. (lines 3-5 col. 4 '134)

2. **Regarding claim 7**, Gandhi discloses the claimed invention as discussed above including, milling the soybeans to form a slurry, homogenizing the soybean slurry, at a temperature of 95°C., (lines 21-23 col. 5 '846) with two steps, and pressure up to 1500 bar, total cumulative pressure at least 2,000 bar, to give a soybean milk with particle size of 20-40 microns, but lacks soaking the soybeans. Nishimura teaches soaking soybeans at temperature ranging from 40-90°C, (lines 47-49 col. 5 '134) for times of up to 60 minutes. (line 54 col.8 '134) The time of soaking is dependent upon the temperature, the hotter the shorter the soaking time. (line 62 col. 2 '134)
3. Gandhi and Nishimura are analogous art, in that both are concerned with the processing of soybeans to provide comestibles for human consumption.
4. It would have been obvious to a person of ordinary skill at the time of the invention to modify the teachings of Gandhi with that of Nishimura by the introduction of a soybean hydration step preparatory to grinding soybeans, thus adding a preparatory step to enable wider application of the method and to improve taste, (lines 66-67 col. 1 '134), and if [homogenization] pressure is too high, the particle size of the obtained aqueous soybean slurry becomes too small to separate the Okara and soybean milk effectively. (lines 3-5 col. 4 '134)
5. **Regarding claim 8 and 9**, Gandhi and Nishimura, disclose the claimed invention as discussed above including, processing the beans at temperatures from 50-55° C and keeping the slurry at that temperature for one hour prior to homogenization (lines 15 col. 9 '846) or at 95° C for 15 minutes prior to homogenization. (lines 13 col. 8 '846)

6. **Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over , Gandhi, N. R., et al., U. S. Pat. # 6,322,846 in view of Nishimura, T., et al., U.S. Pat. # 5,955,134. and further in view of Alan, L.J.L., et al., U.S.Pat.# 5,863,590.**
7. Gandhi and Nishimura are taken as cited above.
- h. Alan teaches:
- i. A mixing a coagulant with the soybean milk to form tofu. (line 1 col.2 '590)
- ii. A method using the steps of stabilization, filling, sterilization and cooling . (lines 59 col. 1 to line 4 col. 2 '590)
8. **Regarding claim 10 and 11,** Gandhi and Nishimura, disclose the claimed invention as discussed above including the use of a food additive (line 2 col. 7 '846) but lack the use of a coagulant. Alan teaches the use of a coagulant to produce tofu from soybean milk. (line 1 col.2 '590)
9. The use of a coagulation agent to produce a hard, soft or uncurdled soybean curd, is well known in the art of the preparation of soybean food products. The Applicant's claim of using a generic coagulating agent and the resultant products would be per se obvious, and would be well known to one of ordinary skill in the art at the time of the invention.
10. Gandhi, Nishimura and Alan are analogous art in that all are involved in the preparation of soybeans for human consumption.
11. It would have been obvious to one of ordinary skill in the art to modify the methods of Gandhi and Nishimura with those of Alan, in order to produce a

commercially viable product with an increased storage life and improved texture and taste over other tofu products. (lines 46-48 col. 1 '590) In addition by using the entire soybean reduces waste and increases the yield of soybean milk.

12. **Regarding claim 12**, Gandhi, Nishimura, and Alan disclose the claimed invention as discussed above including, the use of food additive: fruit flavoring. (line 2 col. 7 '846) Alan discloses stabilization, filling, sterilization and cooling steps, (lines 59 col. 1 to line 4 col. 2 '590) however, said steps are standard techniques and methods used manufacturing of foodstuffs and wherein the Applicant has merely stated steps to be used without further explanation or delineation of the procedures and methods to be used in these steps, said steps shall be regarded as not containing a patentable distinction.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JERRY W. ANDERSON whose telephone number is (571)270-3734. The examiner can normally be reached on 7 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

jwa

/KEITH D. HENDRICKS/

Supervisory Patent Examiner, Art Unit 1794